



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

113

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,152	02/25/2002	Anders Terje Brandt		9187

23363 7590 12/31/2007
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT	PAPER NUMBER
----------	--------------

2619

MAIL DATE	DELIVERY MODE
-----------	---------------

12/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/081,152

Applicant(s)

BRANDT ET AL.

Examiner

Andrew C. Lee

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1 – 18 are pending.
2. Claim 19 had been canceled.

Specification

3. The amended specification (dated 07/13/2007) does not fully comply with 37 CFR 1.77 (b).
4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

- (l) **SEQUENCE LISTING** (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) **Title of the Invention:** See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) **Cross-References to Related Applications:** See 37 CFR 1.78 and MPEP § 201.11.
- (c) **Statement Regarding Federally Sponsored Research and Development:** See MPEP § 310.
- (d) **The Names Of The Parties To A Joint Research Agreement:** See 37 CFR 1.71(g).
- (e) **Incorporation-By-Reference Of Material Submitted On a Compact Disc:** The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) **Background of the Invention:** See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
- (1) **Field of the Invention:** A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

- (2). Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

5. The disclosure is objected to under 37 CFR 1.71, as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood:

Referring to the specification dated 02/25/2002:

[page 1, lines 29 – 30] the claimed subject matters “when no queues transmit units or packets using the bandwidth guaranteeing process”

[page 2, lines 1 – 9] the claimed subject matters “determining a new value for the variable of the queue, the new value relating to a mathematical operation using a previous value for the variable at a point in time prior to transmission of the packet or unit and a factor scaling with/relating to the priority or quality of the queue multiplied with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit, where the mathematical operation brings the new value to, compared to the previous value, not fulfil the predetermined criterion”

[page 5, lines 13 – 18] the claimed subject matter “determining a new value for the variable of the queue, the new value relating to a value for the variable at a point in time prior to transmission of the packet or unit plus a factor scaling with/relating to the priority or quality of the queue multiplied with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit”

[page 7, lines 13 – 14] the claimed subject matters “means for, when no queues transmit units or packets using the bandwidth guaranteeing process”

[page 7, lines 19 – 27] the claimed subject matters “determining a new value for the variable of the queue, the new value relating to a mathematical operation using a previous value for the variable at a point in time prior to transmission of the packet or unit and a factor scaling with/relating to the priority or quality of the queue multiplied with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit, where the mathematical operation brings the new value to, compared to the previous value, not fulfil the predetermined criterion”

[page 8, lines 5 – 10] the claimed subject matters “determining a new value for the variable of the queue, the new value relating to a value for the variable at a point in time prior to transmission of the packet or unit plus a factor scaling with/relating to the priority or quality of the queue multiplied with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit”

6. The above extracted limitations are merely addressed only in the Brief summary of Invention, and they are not fully support and describe clearly in the Detailed Description of Invention.

According to MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed. Since the purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention, the summary should be directed to the specific invention being claimed, in contradistinction to mere generalities which would be equally applicable to numerous preceding patents. That is, the subject matter of the invention should be described in one or more clear, concise sentences or paragraphs. Stereotyped general statements that would fit one application as well as another serve no useful purpose and may well be required to be canceled as surplusage, and, in the absence of any illuminating statement, replaced by statements that are directly on point as applicable exclusively to the case at hand. The brief summary, if properly written to set out the exact nature, operation, and purpose of the invention, will be of material assistance in aiding ready understanding of the patent in future searches. The brief summary should be more than a mere statement of the objects of the invention, which statement is also permissible under 37 CFR 1.73. The brief summary of invention should be consistent with the subject matter of the claims.

According to MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. A detailed description of the invention and drawings follows the general statement of invention and brief description of the drawings. This detailed description, required by 37 CFR 1.71, MPEP § 608.01, must be

in such particularity as to enable any person skilled in the pertinent art or science to make and use the invention without involving extensive experimentation. An applicant is ordinarily permitted to use his or her own terminology, as long as it can be understood. Necessary grammatical corrections, however, should be required by the examiner, but it must be remembered that an examination is not made for the purpose of securing grammatical perfection. The reference characters must be properly applied, no single reference character being used for two different parts or for a given part and a modification of such part. In the latter case, the reference character, applied to the given part, with a prime affixed may advantageously be applied to the modification. Every feature specified in the claims must be illustrated, but there should be no superfluous illustrations.

7. Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

A shortened statutory period for reply to this action is set to expire ONE MONTH or THIRTY DAYS, whichever is longer, from the mailing date of this letter.

Claim Objections

8. Claim 4 is objected to because of the following informalities:

The phrase "adapted to", in line 1, is not a positive recitation. Appropriate correction is required.

9. Claim 13 is objected to because of the following informalities:

The phrase "adapted to", in line 1, is not a positive recitation. Appropriate correction is required.

10. +Claim 14 is objected to because of the following informalities:

The phrase "adapted to", in line 1, is not a positive recitation. Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. The claims 1, 2, 10, 11 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document with grammatical and idiomatic errors. The applicant(s) is advised to amend and correct all the grammatical and idiomatic errors in the disclosure so as to conform with current U.S. practice; otherwise, it is impossible to put the applicant forward for further examination/prosecution for rejections or for allowable.

13. Claims 1, 2, 10, 11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is not clear what applicant means by "when no queues transmit units or packets using the bandwidth guaranteeing process (lines 14 – 15)". It is

not clear which group of queues the applicant referring to. The sentence is a run-on sentence. Refer to claim 1, lines 20 to 28, it is very ambiguous what the applicant really tries to implement – an equation or a computer program subroutine – some punctuation marks are needed in order to provide a better understanding of the claimed subjected matter "the new value relating to a mathematical operation using a previous value for the variable at a point in time prior to transmission of the packet or unit and a factor scaling with/relating to the priority or quality of the queue multiplex with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit, where the mathematical operation brings the new value to, compared to the previous value, not fulfil the predetermined criterion." The phrases used in the claim are very ambiguous and indefinite, the phrase "a factor scaling with/relating to the priority", "from the queue and/or a period of time...", and "mathematical operation brings the new value". Clarification is required.

Regarding claim 2, it is not clear what applicant means by "when no queues transmit units or packets using the bandwidth guaranteeing process (lines 1 – 2)". It is not clear which group of queues the applicant referring to. The sentence is a run-on sentence. Refer to claim 2, lines 7 to 12, it is very ambiguous what the applicant really tries to implement – an equation or a computer program subroutine – some punctuation marks are needed in order to provide a better understanding of the claimed subjected matter "determining a new value for the variable of the queue, the new value relating to a value for the variable at a point in time prior to transmission of the packet or unit plus

a factor scaling with/relating to the priority or quality of the queue multiplied with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit." The phrases used in the claim are very ambiguous and indefinite, the phrase "a factor scaling with/relating to the priority", "from the queue and/or a period of time...". Clarification is required.

Regarding claim 10, it is not clear what applicant means by "when no queues transmit units or packets using the bandwidth guaranteeing process (lines 16 – 17)". It is not clear which group of queues the applicant referring to. The sentence is a run-on sentence. Refer to claim 10, lines 20 to 28, it is very ambiguous what the applicant really tries to implement – an equation or a computer program subroutine – some punctuation marks are needed in order to provide a better understanding of the claimed subjected matter "the new value relating to a mathematical operation using a previous value for the variable at a point in time prior to transmission of the packet or unit and a factor scaling with/relating to the priority or quality of the queue multiplex with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit, where the mathematical operation brings the new value to, compared to the previous value, not fulfil the predetermined criterion." The phrases used in the claim are very ambiguous and indefinite, the phrase "a factor scaling with/relating to the priority", "from the queue and/or a period of time...", and "mathematical operation brings the new value". Clarification is required.

Regarding claim 11, it is not clear what applicant means by "when no queues transmit units or packets using the bandwidth guaranteeing process (lines 1 – 2)". It is not clear which group of queues the applicant referring to. The sentence is a run-on sentence. Refer to claim 11, lines 7 to 12, it is very ambiguous what the applicant really tries to implement – an equation or a computer program subroutine – some punctuation marks are needed in order to provide a better understanding of the claimed subjected matter "determining a new value for the variable of the queue, the new value relating to a value for the variable at a point in time prior to transmission of the packet or unit plus a factor scaling with/relating to the priority or quality of the queue multiplied with a factor relating to a size of the packet or unit transmitted from the queue and/or a period of time used for transmitting the packet or unit." The phrases used in the claim are very ambiguous and indefinite, the phrase "a factor scaling with/relating to the priority", "from the queue and/or a period of time...". Clarification is required.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "that queue" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "that queue" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the variable of the queue" in lines 1 – 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "that queue" in line 20. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "that queue" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the variable of the queue" in lines 1 – 2. There is insufficient antecedent basis for this limitation in the claim.

Response to Arguments

15. Applicant's arguments filed on 10/05/2007 with respect to claims 1 – 18 have been fully considered but they are not persuasive.

Regarding claim 1, applicant argues reference Amou et al. do not disclose claimed "when no queues transmit units or packets using the bandwidth guaranteeing process". Examiner contends reference Amou et al. do disclose the claimed subject matter. Examiner interprets "when no queues transmit units or packets using the

bandwidth guaranteeing process" as when all of the priority queues of the priority queue class are empty, see column 7, lines 47 - 61. Since the sentence structure of the claimed subject "when no queues transmit units or packets using the bandwidth guaranteeing process" is very ambiguous and indefinite. "No queues transmit units or packets" can be interpreted as the queues can be empty. If the claimed subject matter implemented in this way "when no queues using the bandwidth guaranteeing process to transmit units or packets", then it will be clear and definite that "no queues using bandwidth guaranteeing process" will then refer to using the priority queues.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bass et al. (US 695424 B1) disclose a system and method of moving information units from a network processor toward a data transmission network in a prioritized sequence which accommodates several different levels of service.
- Yazaki et al. (US 6920109 B2) disclose when a packet arrives at a shaping unit 500, a discard control unit 510 judges whether to "store" or "discard" the arrived packet. Packets judged to be "stored" are stored into a packet storage FIFO buffer 520 and sent out within a transmission bandwidth greater than the total sum of user-by-user minimum bandwidths.

- Abriru et al. (US 6839358 B2) disclose n a relaying apparatus comprising input side accommodating portions including input side queues, a plurality of output side accommodating portions including output side queues, and a switch fabric for mutually connecting the input side queues and the output side queues in a mesh form, in a time slot of a fixed period, the output side-addressed queue managers corresponding to the output side accommodating portions select a bandwidth guaranteed packet so as to guarantee a bandwidth, and output priority/non-priority signals for indicating which of the bandwidth guaranteed packet and a bandwidth non-guaranteed packet has been selected, and output demand signals of the packet.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/081,152
Art Unit: 2619

Page 16

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C. Lee/::<12/12/2007>

EDAN . ORGAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Edan . Orgad', is written over the printed name and title.